

300. Routing flow summary window 310 may indicate sequence information and process yield information.

Routing flow summary window 310 may also include a detail button 320.

- 5 When detail button 320 is selected, details of the routing indicated in routing summary screen window 310 may be displayed.

A formula summary window 1500 as shown in Figure 15 may display when the user selects a formula node in the Navigator tree window 200. Formula

- 10 summary header window 1510 may display summary information including the formula number and version, a description of the formula, information as to the organization that owns or controls the formula, a main product which uses the formula and the quantity of product produced by the formula.

- 15 The formula summary view may include ingredient list 1520. Ingredient list 1520 may include a list of all ingredients required in the selected formula, and may include the quantity and a description of the ingredient.

- Still referring to Figure 15, ingredient list 1520 may include several buttons or
20 tabs. Details button 1530, when selected, may display a formula detail window 1600 (as shown in Figure 16). Technical parameters selection tab 1540, when selected, may display the technical parameters, for example required purity, of the selected formula. Validity rules selection tab 1550, when selected, may display the validity rules related to the selected formula.

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Figure 16 shows a formula detail window 1600, according to an embodiment of the present invention. Formula detail window 1600 may display when the user

selects a formula node in the Navigator tree, when the user presses the details button 1530 from the formula summary window or by selecting the open option (right mouse menu 140, the edit menu or from the toolbar).

5 Formula detail window 1600 may include formula detail header 1610 that displays detail information about a selected formula and allows editing of such information. Detail information may include a formula name and version, a laboratory name and description, comments, formula class, owner and indicators for packaging, whether the formula is active, whether scaling is allowed and the status of the formula.

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Formula detail window 1600 may include a formula components window 1620. Formula components window 1620 may list the products that use (reference) the selected formula, the by-products produced by the selected formula and the details of an ingredient used in the selected formula.

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As shown in Figure 16, formula detail window 1600 may also include a details button 1630 that, when selected, may provide further details on a selected component, for example a specific product that uses the selected formula.

20 Figure 17 shows a routing summary window 1700, according to an embodiment of the present invention. Routing summary window 1700 may display when the user selects a routing node in the Navigator tree. Routing summary header window 1710 may display a variety of summary information describing a routing, including the name and version number of the routing, a description of the routing, the
25 class of the routing, the quantity of product produced by the routing, theoretical loss of the planned routing and planned loss of the routing.

Routing summary window 1700 may also have a "show details "button 1720 that, when selected, may display a routing detail window (not shown).

A routing detail window (not shown) may display when the user selects a routing node in the Navigator tree, when the user presses the detail button 320 from the Routing Summary window or by selecting the Open option (right mouse menu/edit menu/toolbar). In a manner similar to the other detail windows, the routing detail window may provide a user with further details of routing information, and the ability to edit routing information.

Figure 4 shows a computer implemented exemplary recipe creation process 400, according to embodiments of the present invention. Process 400 is realized by computer code executed on a processor of a computer system.

To create a recipe, a user may have the option to specify the product code and quantity in step 410 or the formula number/version in step 420.

If the user enters the product code and product quantity, embodiments of the present invention may displays a list of all effective formulas (if more than one exists). The user may select the one he/she wants to use to create the recipe in step 430.

In step 440, the formula is determined.

Optionally, the user has the ability to specify the routing that will be used for the recipe definition in step 450.